

## REMARKS

Claim 55 is added, and therefore claims 27 to 55 are now pending in the present application.

In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

As to the Examiner Interview of November 29, 2008 (for which an Interview Summary was mailed on January 7, 2009), Applicants thank the Examiner for the November 29, 2008 Interview with Elizabeth Tretter (with Kenyon), and for confirming that the Office Action was a non-final Office Action – and not an Ex Parte Quayle Action nor a Final Office Action, as erroneously indicated in the November 26, 2008 Office Action. It is believed this Substance of the Interview satisfies the request for such in the Interview Summary of January 7, 2009.

Applicant thanks the Examiner for acknowledging the claim for foreign priority and for indicating that all of the certified copies of the priority documents have been received.

Claims 27 to 31, 33, and 34 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 6,515,589 (“Schneider” reference) in view of U.S. Patent 4,769,550 (“Dolnick” reference).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of

obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

While the rejections may not be agreed with, to facilitate matters, claims 27 and 42 have been rewritten.

As to claim 27, the Office Action acknowledges that the Schneider reference does not disclose a detector that contains more than one receiver or transmitter. As to the secondary Dolnick reference, it does not cure the shortcomings of the Schneider reference. The Dolnick reference specifically acknowledges that its system is “*two* photoelectric detection systems of conventional design mounted together.” (See Col. 1, lines 45-46). The Dolnick reference does not disclose or suggest a *single* detector containing more than one detector or transmitter, as provided for in the context of the presently claimed subject matter.

Furthermore, neither the Schneider reference nor the Dolnick reference disclose or suggest a *radiation* transmitter or a *radiation* receiver, as provided for in the context of the presently claimed subject matter. Both the Schneider reference and the Dolnick references refer to systems that detect scattering *light*. In contrast, the presently claimed subject matter is based on a scattering radiation principle, which is much more expansive and would include the detection of other radiation particles such as x-rays, etc. (which are non-light forms of radiation).

Also, the Schneider and Dolnick references do not disclose or suggest *a microcomputer to control the radiation transmitter*, as provided for in claim 27. Neither the Schneider reference nor the Dolnick reference disclose or suggest a microcomputer to control the transmitters. Claim 27, as presented, is to *a fire detector, including: a first radiation transmitter and a first radiation receiver having a first beam path that forms a first scattering volume; a second radiation transmitter and a second radiation receiver having a second beam path that forms a second scattering volume, in which the first scattering volume and the second scattering volume are spatially separated; and a microcomputer selectably controls the first and second radiation transmitters.*

For the aforementioned reasons, claim 27, as presented, is allowable, as are its dependent claims 28 to 31, 33 and 34.

Claims 32, 35 to 41 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 6,515,589 ("Schneider" reference) and U.S. Patent 4,769,550 ("Dolnick" reference) in further view of U.S. Patent 5,381,130 ("Thuillard" reference).

Claims 32, 35 to 41 depend from claim 27, as presented, and are therefore allowable for essentially the same reasons as claim 27, as presented, since the secondary reference does not cure -- and is not asserted to cure -- the critical deficiencies of the primary references.

Furthermore, the Thuillard reference does not disclose the feature of claim 32, which provides that *"the third scattering volume [includes] at least a partial area of the surface of the cover plate covering the fire detector"*.

Claims 42 to 54 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 6,515,589 ("Schneider" reference), U.S. Patent 4,769,550 ("Dolnick" reference), and U.S. Patent 5,381,130 ("Thuillard" reference) in view of U.S. Patent 6,218,950 ("Politze" reference).

While the rejections may not be agreed with, to facilitate matters, claim 42 has been rewritten.

Claim 42, as presented is to a *method for operating a fire detector, including: obtaining scattered radiation measured values from two different scattering volumes; comparing the scattered radiation measured values to one another; inferring a presence of smoke and a source of fire if the scattered radiation measured values are generally equal; determining a type, a size, a distance, and a color of the smoke; and inferring a presence of an interfering body in a scattering volume if the scattered radiation measured values deviate from one another.*

The Schneider, Dolnick, and Thuillard references do not disclose a method for using a processor to measure and compare values for the scattered radiation, as provided for in the context of the presently claimed subject matter. Further, the Politze reference refers to a device that compares the *ratio* of two scattered radiation signals to a predetermined ratio, but that does not actually compare the values of the two signals. Moreover, Politze does not disclose a method that determines a type, a size, a distance, and a color of the smoke. As to inferring the type of smoke, the Politze reference does not disclose this feature since it specifically says that the "type of smoke which is actually present need not be determined." (Col 2., lines 26-27).

For the reasons explained above, claim 42 is allowable, as are its dependent claims 43 to 54.

New claim 55 does not add any new matter and is supported by the present application. Claim 55 depends from claim 27, and is therefore allowable for the same reasons.

Accordingly, claims 27 to 55 are allowable.

### CONCLUSION

In view of the above, it is respectfully submitted that all of presently pending claims 27 to 55 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn. Since all issues raised by the Examiner have been addressed, an early and favorable action on the merits is respectfully requested.

Respectfully submitted,

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